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| APPLICATION NO.     | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |  |
|---------------------|-------------|----------------------|---------------------|------------------|--|
| 10/743,289          | 12/23/2003  | Jang Hwan Cho        | YHK-0110            | 7859             |  |
| 34610               | 7590        | 01/25/2005           | EXAMINER            |                  |  |
| FLESHNER & KIM, LLP |             |                      |                     | A, MINH D        |  |
| P.O. BOX 221200     |             |                      |                     | ART UNIT         |  |
| CHANTILLY, VA 20153 |             |                      |                     | 2821             |  |
|                     |             |                      |                     | PAPER NUMBER     |  |

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|------------------------------|------------------------|---------------------|
|                              | 10/743,289             | CHO JANG            |
| Examiner                     | Art Unit               |                     |
| Minh D A                     | 2821                   |                     |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 23 December 2003.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-14 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1,4 and 9 is/are rejected.

7)  Claim(s) 2,3,5-8 and 10-14 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

***DETAILED ACTION***

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1,4 and 9 are rejected under 35 U.S.C. 102(e) as being unpatentable by Lee et al (US 6,680,581).

Regarding claim 1, Lee discloses an energy recovering apparatus of a plasma display panel, comprising: said plasma display panel; a voltage source (Vs) for supplying sustain voltage to the panel; a first inductor (L1) for recovering an energy stored the panel into the voltage source (Vs); a second inductor (L2) for receiving an energy from the voltage source which the recovered energy has been stored to charge the received energy; and switching devices (S1-S4 & Sa-Sb) for shutting off a path between the voltage source (Vs) and the second inductor (L2) in a state in which energy

has been stored in the second inductor (L2) to derive an inverse voltage into the second inductor (L2) and allowing the inverse voltage to be applied to the panel. See figures 2-4, col.7, lines 1-67 to col.12, lines 1-32.

Regarding claim 4, Lee discloses a first switch (S1) for forming a path between the voltage of the source and the panel such that said sustain voltage source is supplied to the panel; a second switch (S2) for forming path among the panel, the first inductor (I1) and the voltage source (Vs) such that an energy from the panel recovered into voltage source; and a first diode (D1) connected between the second switch(S2) and the panel. See figure 4.

Regarding claim 9, Lee discloses a plasma display panel, comprising the steps of: (A) supplying a sustain voltage from a voltage source (Vs) to the panel; (B) recovering an energy stored the panel the voltage source using a first inductor (L1); (C) receiving an energy from the voltage source(Vs) which the recovered energy has been stored thereby charge the energy into a second inductor (L2); and (D) shutting off a path between the voltage source(Vs) and the second inductor (L2) in a state in which an energy has been stored in the second inductor (I2) using the switching devices to derive an inverse voltage into second inductor (I2) and applying said inverse voltage to the panel. See figures 1A-4, col.2, lines 14-67 to col.12, lines 1-58.

***Allowable Subject Matter***

Art Unit: 2821

3. Claims 2-3, 5-8 and 10-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach that, wherein the voltage source includes: a first voltage source connected between the panel and the ground voltage source; and a second voltage source connected between the first voltage source and the ground voltage source recited in dependent claims 2 and 10.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Yoon et al (US 2004/0001290A1) and Kang (US 6,778,153) are cited to show an energy recovery circuit for plasma panel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Minh A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 –2:30 PM).

If attempts to reach the examiner by telephone is unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and (703) 872-9319 for final communications.

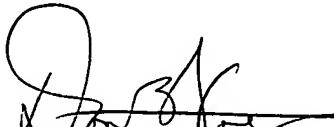
Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (571) 272-1553.

Examiner

Minh A

Art unit 2821

01/22/05



Don Wong  
Supervisory Patent Examiner  
Technology Center 2800